

05-25-00

A

05/24/00

UTILITY PATENT APPLICATION TRANSMITTAL

Only for new nonprovisional applications
under 37 CFR 1.53(b))

Title of Invention

System and Method for Sending a Web Page
via Electronic Mail

Named Inventor(s)

Gabriel J. Hall and Alan Ramaley

Attorney Docket

13237-2615/MS#149405.1

Express Mail Label No.

EL329528021US

PTO
U.S.
05/24/00
577909

APPLICATION ELEMENTS

1. ☒ Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification, Claims,
and Abstract Total Pages **28**
3. ☒ Drawings Total Sheets **6**
4. Oath or Declaration Total Pages **2**
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17
completed)
[Note Box 5 Below]
 - (i) ☐ DELETION OF INVENTOR(S)
Signed statement attached
deleting inventor(s) named in the
prior application, see 37 CFR
1.63(d)(2) and 1.33(b).
5. ☐ Incorporation by Reference
(usable if Box 4b is checked)
The entire disclosure of the prior application, from
which a copy of the oath or declaration is supplied
under Box 4b, is considered as being part of the
disclosure of the accompanying application and is
hereby incorporated by reference therein.
6. ☐ Microfiche Computer Program (Appendix)
7. ☐ Nucleotide and/or Amino Acid Sequence
Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of
above copies

Assistant Commissioner for Patents
ADDRESS TO: Box Patent Application
Washington, D.C. 20231

ACCOMPANYING APPLICATION PARTS

8. ☐ Assignment:
 - a. ☐ Assignment Papers (cover sheet &
document(s))
 - b. ☐ Assignment is of record in parent
application No. _____
9. ☐ 37 CFR 3.73(b) Statement
(when there is an assignee)
☐ Power of Attorney by assignee
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement (IDS)
PTO-1449
☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
14. ☐ Small Entity Statement(s)
☐ Statement filed in prior application
Status still proper and desired
15. ☐ Certified Copy of Priority Document(s)
16. ☐ Other: _____

17. If a **CONTINUING APPLICATION**, check appropriate box and supply the requisite information:
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____

18. CORRESPONDENCE ADDRESS:

A. Shane Nichols
JONES & ASKEW, LLP
2400 Monarch Tower
3424 Peachtree Road, N.E.
Atlanta, Georgia 30326

By: Shane Nichols Reg. No. 43,836
Date: May 24, 2000
Telephone: 404-949-2400
Facsimile: 404-949-2499

05/24/00 05/24/00

10 **SYSTEM AND METHOD FOR SENDING A WEB PAGE VIA ELECTRONIC MAIL**

TECHNICAL FIELD

15 The present invention relates to a system and method
 for transmitting web pages, and more particularly relates to a
 system and method for packaging a web page for transmission via
 electronic mail (email) such that the received web page is
 functional because it is delivered with all of the web page's
 supporting resource files.

20

BACKGROUND OF THE INVENTION

 Electronic mail (email) processing is the primary use
 of the Internet today. Modern Internet users desire to send web
 page information to others via email. For example, a user may
25 wish to send another person a web page that the user is
 constructing for the purposes of soliciting the recipient's
 comments. The attachment of a web page to an email note is
 difficult at best.

 A typical web page consists of a main HTML
30 (Hypertext Markup Language) source file and a host of resource
 files, such as graphics files, sound files, etc. Often, resource files
 are maintained within a predetermined folder structure and the
 main HTML source document includes links to the locations of the
 resource files within that folder structure. Because any given

004250 6062250

SUMMARY OF THE INVENTION

The present invention satisfies the above-described needs by providing a system and method for automatically packaging a web page as a single-file attachment to an email note. An email client is configured to watch for attachment events. When an attachment event is recognized by the email client, a determination is made as to whether the attached file is an HTML document. If the attached document is an HTML document, then a determination is made as to whether the HTML document has supporting resource files. If not, then the HTML file is simply attached as is. If the HTML file has supporting resource files, then the registry is checked to see if the user has specified to include supporting resource files with HTML attachment. If not, then the user is prompted by a dialog box to select whether the supporting resource files should be attached.

If the user expresses a desire to have the supporting resource files attached then the web page and all supporting resource files are packaged into a single file, such as in MHTML (Multipurpose Internet Mail Extensions encapsulated HTML) format. This single file is attached to the email note and transmitted with the email note to the recipient. The recipient will be able to unpack the attachment so that the web page can be displayed in its original, functioning form.

In one aspect of the present invention, a method is provided for automatically attaching a web page and its resource files as a single file to an email note. When an attachment event is detected, a determination is made as to whether the file selected for attachment is a web page. If the selected file is a web page a determination is made as to whether the selected file includes one or more links to a resource file. If the selected file includes at least one link to a resource file, the selected file and the resource file is

packed into a single attachment file and the attachment file is attached to the email note.

In another aspect of the present invention, a method is provided for automatically attaching a web page as a single file to an email note. A determination is made that a user desires to attach a selected file to the email note. A second determination is made as to whether the selected file is a web page. If the selected file is a web page, a determination is made as to whether the selected file includes at least one link to at least one resource file. If the selected file includes a link to a resource file, a determination is made as to whether automatic attachment of the at least one resource file has been authorized. If the automatic attachment has been authorized, the selected file and the at least one resource file are packed into a single attachment file and the attachment file is attached to the email note.

In yet another aspect of the invention, a system is provided for automatically attaching a web page as a single file to an email note. An email client is provided for generating and transmitting an email note. A web page is provided with at least one link to at least one resource file. A web page packing object is also provided and is operative to pack the web page and at least one resource file into a single web archive file. The email client is further operative to detect the attachment of the web page to the email note and to automatically trigger the web page packing object to pack the web page and at least one resource file into the single web archive file.

The various aspects of the present invention may be more clearly understood and appreciated from a review of the following detailed description of the disclosed embodiments and by reference to the drawings and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram of a computer system that provides the operating environment for an exemplary embodiment of the present invention.

Fig. 2 is a block diagram depicting an exemplary flow path for a web page that is sent via email to a recipient.

Fig. 3a depicts a web page and a resource file attached to an email note in a conventional manner.

Fig. 3b depicts a conventional folder structure for maintaining a web page and a resource file.

Fig. 4 is a flowchart depicting a method for automatically packing an HTML web page into a single MHTML file attachment to an email note in an exemplary embodiment of the present invention.

Fig. 5 is an email options dialog box for configuring an exemplary embodiment of the present invention.

Fig. 6 is an alert dialog box for configuring an exemplary embodiment of the present invention.

DETAILED DESCRIPTION

The present invention satisfies the above-described needs by providing a system and method for automatically packaging a web page as a single-file attachment to an email note. An email client is configured to watch for attachment events. When an attachment event is recognized by the email client, a determination is made as to whether the attached file is an HTML document. If the attached document is an HTML document, then a determination is made as to whether the HTML document has supporting resource files. If not, then the HTML file is simply attached as is. If the HTML file has supporting resource files, then

004490 60622560

the registry is checked to see if the user has specified to include all supporting resource files with any HTML attachment. If not, then the user is prompted by a dialog box to select whether the supporting resource files should be attached.

5 If the user expresses a desire to have the supporting resource files attached then the web page and all supporting resource files are packaged into a single file in MHTML (Multipurpose Internet Mail Extensions encapsulated HTML) format. This single file is attached to the email note and
10 transmitted with the email note to the recipient. The recipient will be able to unpack the attachment so that the web page can be displayed in its original form.

An Exemplary Operating Environment

15 Fig. 1 and the following discussion are intended to provide a brief, general description of a suitable computing environment in which the invention may be implemented. While the invention will be described in the general context of an application program that runs on an operating system in
20 conjunction with a personal computer, those skilled in the art will recognize that the invention also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks or implement particular abstract
25 data types. Moreover, those skilled in the art will appreciate that the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer
30 electronics, minicomputers, mainframe computers, and the like. The invention may also be practiced in distributed computing environments where tasks are performed by remote processing

devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.

With reference to Fig. 1, an exemplary system for
5 implementing the invention includes a conventional personal computer **20**, including a processing unit **21**, a system memory **22**, and a system bus **23** that couples the system memory to the processing unit **21**. The system memory **22** includes read only memory (ROM) **24** and random access memory (RAM) **25**. A
10 basic input/output system **26** (BIOS), containing the basic routines that help to transfer information between elements within the personal computer **20**, such as during start-up, is stored in ROM **24**. The personal computer **20** further includes a hard disk drive **27**, a magnetic disk drive **28**, e.g., to read from or write to a
15 removable disk **29**, and an optical disk drive **30**, e.g., for reading a CD-ROM disk **31** or to read from or write to other optical media. The hard disk drive **27**, magnetic disk drive **28**, and optical disk drive **30** are connected to the system bus **23** by a hard disk drive interface **32**, a magnetic disk drive interface **33**, and an optical
20 drive interface **34**, respectively. The drives and their associated computer-readable media provide nonvolatile storage for the personal computer **20**. Although the description of computer-readable media above refers to a hard disk, a removable magnetic disk and a CD-ROM disk, it should be appreciated by those skilled
25 in the art that other types of media which are readable by a computer, such as magnetic cassettes, flash memory cards, digital video disks, Bernoulli cartridges, and the like, may also be used in the exemplary operating environment.

A number of program modules may be stored in the
30 drives and RAM **25**, including an operating system **35**, one or more email client application programs **36**, a main web page document (e.g., an HTML source file) **37**, at least one resource file **38**, and

any number of other program modules, such as a Registry **39** maintained by the operating system **35** for storing, among other things, a user's preferences. A user may enter commands and information into the personal computer **20** through a keyboard **40** and pointing device, such as a mouse **42**. Other input devices (not shown) may include a microphone, joystick, game pad, satellite dish, scanner, or the like. These and other input devices are often connected to the processing unit **21** through a serial port interface **46** that is coupled to the system bus, but may be connected by other interfaces, such as a game port or a universal serial bus (USB). A monitor **47** or other type of display device is also connected to the system bus **23** via an interface, such as a video adapter **48**. In addition to the monitor, personal computers typically include other peripheral output devices (not shown), such as speakers or printers.

The personal computer **20** may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer **49**. The remote computer **49** may be a server, a router, a peer device or other common network node, and typically includes many or all of the elements described relative to the personal computer **20**, although only a memory storage device **50** has been illustrated in Figure 1. The logical connections depicted in Figure 1 include a local area network (LAN) **51** and a wide area network (WAN) **52**. Such networking environments are commonplace in offices, enterprise-wide computer networks, intranets and the Internet.

When used in a LAN networking environment, the personal computer **20** is connected to the LAN **51** through a network interface **53**. When used in a WAN networking environment, the personal computer **20** typically includes a modem **54** or other means for establishing communications over the WAN **52**, such as the Internet. The modem **54**, which may be internal or external, is connected to the system bus **23** via the serial port

004250 00522500

interface **46**. In a networked environment, program modules depicted relative to the personal computer **20**, or portions thereof, may be stored in the remote memory storage device. It will be appreciated that the network connections shown are exemplary and other means of establishing a communications link between the computers may be used.

An exemplary embodiment of the present invention is represented by the "MICROSOFT OUTLOOK" and "MICROSOFT OUTLOOK EXPRESS" email clients and HTML source file editors including the "MICROSOFT WORD" word processing application program, the "MICROSOFT EXCEL" spreadsheet application program, the "MICROSOFT ACCESS" database application program, and the "MICROSOFT POWERPOINT" graphical presentation application program. However, it should be understood that the present invention can be implemented by various program modules and/or application programs for use with various operating systems.

A Method for Sending a Web Page to a Recipient

Turning now to Fig. 2, a block diagram is shown, depicting an exemplary flow path for a web page that is sent via email to a recipient. As is known to those skilled in the art, a web page typically includes a main Hypertext Markup Language (HTML) source file **202** and at least one resource file **204**. The HTML source file can be loaded into a browser **206** and displayed as a displayed page **208** on a display device, such as a computer monitor. The displayed page **208** is simply a graphical representation of the code contained in the main HTML source file **202**.

The code in the HTML source file will often include references or links to other objects that are stored in the resource

files **204**. While basic text is often stored directly in the HTML source file **202**, resource files **204** typically contain the non-text components of the web page, such as graphics objects and sound objects. Often, resource files are maintained within a folder structure (not shown) and the main HTML source file **202** includes links to the locations of the resource files **204** within that folder structure. Because any given resource file may be in a folder that is different than the folder containing the main HTML source file **202**, the links in the main HTML source file **202** will not be functional, unless the resource files **204** are maintained in a location that is accurately referenced by the links.

If a user wants to send only the HTML source file **202** via email, the user can simply save the main HTML source file as an HTML formatted document and attached the saved document to an email note. If the user would like to send one or more resource files **204** associated with the main HTML source file **202**, then the user can save and attach those files to the email note as well. Unfortunately, any folder structure that applied to the original web page will be lost and the links in the main HTML source file **202** may not function properly. To ensure that a functioning web page is delivered to the recipient, the user should “pack” the web page into a file structure that permits the web page to be stored with its resource files, such that the folder structure is maintained.

A method and system for packing a web page’s main HTML source file **202** and all relevant resource files **204** into a single MHTML file is disclosed in a co-pending application, also assigned to Microsoft Corporation. That co-pending application has been assigned Attorney Docket No. 13237-2595 and U.S. Patent Application Serial No. _____. The co-pending application is hereby incorporated by reference.

Once the web page and its associated resource files have been packed (or a decision has been made to send only the

5

15

25

.

30

Any folders listed in the link (here, "Files for Web Page") are assumed to be subfolders of the main HTML source file's folder. Absolute links point to a specific location on a server of other storage means. For example, an absolute link for Picture.gif 304 might be:

,

which points to a specific folder (here, "Files for Web Page") at a specific location on a particular server (here, "Server").

The web page packing method and system disclosed in the above-referenced co-pending patent application provides a means for maintaining the file structure of a web page and its resource files, regardless of whether the links in the web page are relative or absolute. In short, the packing aspect of the invention of the co-pending patent application saves the main HTML source file and all of its resource files in a single file. The web page that is packed into this single file is said to be stored in a "Web Archive" format. In an exemplary embodiment of the present invention, a Web Archive format is a MHTML (Multipurpose Internet Mail Extensions encapsulated HTML) format, but could be any format that permitted the packing of a web page and all accompanying resource files into a single file for email transmission.

In an exemplary embodiment of the above-referenced packing method and system, the folder structure of Fig. 3b could be maintained in the Web Archive format so that the links and the web page function. Accordingly, when the recipient of an email note with an attached web page in Web Archive format opens the note, the attachments (main HTML source file and all resource files) will all be contained in a single file.

An exemplary embodiment of the present invention is directed to a method and system for automatically packing a web page and all accompanying resource files into a single Web

The email client can make this determination. If the file does not have one of these extensions, the method proceeds back to step **402** and attachment event monitoring continues. If, on the other hand, the attached file includes one of these extensions, the method
5 proceeds to decision block **408** wherein a determination is made as to a web page packing registry key has been turned off. The web page packing registry key can reside in an operating system registry and provides a means for recalling a user's preference as to whether a web page packing should be enabled. If the web page
10 packing registry key is off, the user has indicated that the user does not wish for the email client to pack web pages. If the web page packing registry key is off, the method branches back to step **402**, via connector A, and attachment event monitoring continues.

If the web page packing registry key is on, this
15 indicates that the user has enabled the packing of web pages by the email client. In this case, the method branches to step **410** and a determination is made as to whether the web page to be attached includes a link to a resource file. Obviously, if the web page does not include a link, then packing is unnecessary and the method
20 branches to step **414** and the web page's HTML source file is attached as a stand-alone file.

The email client can determine whether the web pages HTML source file contains a link to a resource file (linked content) by at least two methods. Some web page editors (such as
25 MICROSOFT OFFICE WEB PAGE EDITORS) embed a tag into any HTML file that has associated resource files. Typically, the tag will take the form "<link rel=FileList href= . . . >". If the HTML file includes this tag, then the email client will know that the HTML file includes links to resource files.

30 Other email clients will not embed this tag, but the determination as to whether content links exist in the HTML source file can be made by scanning and HTML page for typical

links, such as "", "<frame src= . . .>", etc. The list of tags that would most commonly be searched for is disclosed in the above-identified co-pending application.

If the HTML source file contains a link to at least one
 5 resource file, the method will branch from decision block **410** to decision block **412**. At decision block **412**, a determination is made as to whether each link to resource files is verifiable. A link is verifiable if the location identified in the link can be found and, in fact, identifies an existing resource file. If the links are not
 10 verifiable, the method branches to step **414** and the HTML source file is sent as a stand alone attachment to the email note. On the other hand, if the links are verifiable, the method branches to decision block **416**.

At decision block **416**, a determination is made as to
 15 whether an automatic packing registry key is set to indicate that the user desires the automatic inclusion of resource files as a single Web Archive file attachment to the note. If the user has indicated that the user desires resource files to be automatically included (i.e., without any further prompts to the user), the method branches
 20 to step **418** and the web page and its accompanying resource files are packed into a single file as described above. The packing process can create and store the Web Archive file containing the main HTML source file and the resource files in a temporary directory. After the Web Archive file has been created and stored
 25 in the temporary directory, the file can be attached to the email note for transmission in the conventional manner. A progress dialog box can also be displayed to the user to indicate the progress of the packaging process.

If at decision block **416** a determination is made that
 30 the user has not indicated in the registry that web page attachments to email notes should automatically pack resource files, the method branches to step **420**. At step **420**, an alert is displayed to the user

15

25

30

A Method for Configuring Automatic Web Archive Packing

In an exemplary embodiment of the present invention,
5 a user may indicate the user's preferences as to whether web page
packing should be enabled and, if so, whether web page packing
should be done automatically (i.e., without requesting the user's
specific authorization). As discussed above, in connection with
Fig. 4, two registry keys can be maintained in the Registry **39** (Fig.
10 1) to store the user's web page packing preferences. A first
registry key, the web page packing key enables or disables web
page packing. If this registry key is set to "off," then the user will
never be prompted as to whether the user wishes for linked
resource files to be packed with the web page into a single web
15 archive file and no web page packing will occur. If this registry
key is set to "on," then web page packing will be enabled and web
page packing can occur either automatically or after prompting the
user and receiving authorization.

The automatic packing registry key is a second
20 registry key that pertains to web page packing. As discussed in
connection with Fig. 4, this registry key can be used to determine
whether web page packing will be done automatically or will
require further user authorization. If this registry key is set to
"off," then the user will be prompted to authorize web page
25 packing when links to resource files have been detected in the web
page's main HTML source file. If this registry key is set to "on,"
then automatic web packing will be performed in response to the
detection of an attachment event and of linked resource files, as
discussed above, in connection with Fig. 4.

30 Turning now to Fig. 5, an email options dialog box
500 is depicted from an exemplary embodiment of the present
invention. This email options dialog box **500** may be access from

the “Preferences” menu in the user’s email client. The email options dialog box **500** can be used to set or change the web page packing registry key. The email options dialog box **500** includes a web page packing options area **502** which permits the user to set
 5 both the web page packing registry key and the automatic packing registry key.

The user can select between three settings by clicking on the toggle button **504**. When the user clicks on the toggle button **504**, the email options dialog box **500** displays three choices
 10 which are selectable by the user:

1. Choose between web pages and Web Archives
2. Attach the web pages as single files
3. Attach the web pages as Web Archives

15 If the user selects option 1, the email client will prompt the user to choose between transmitting an attached web page in HTML source file format and transmitting the web page as a single Web Archive file, including the HTML source file and all
 20 accompanying resource files in Web Archive format.

If the user selects option 2, the email client will attach the web page’s main HTML source file as a single attachment without prompting the user for authorization. Similarly, if the user selects option 3, the email client will attach the web page as a
 25 single Web Archive file, including the HTML source file and all accompanying resource files in Web Archive format without prompting the user for authorization.

If the user selects option 1, then the web packing registry key will be set to “on” and the automatic packing registry
 30 key will be set to “off.” If the user selects option 2, then the web page packing registry key will be set to “off” and the automatic packing registry key is unaffected. If the user selects option 3, then

the web page packing registry key will be set to “on” and the automatic packing registry key will be set to “on.”

Turning now to Fig. 6, an alert dialog box **600** is depicted that is displayed by an exemplary embodiment of the present invention. The alert dialog box **600** will be displayed by the email client following the detection of an attachment event. Referring back to Fig. 4, the alert dialog box **600** is displayed when the “no” branch is followed from decision block **416**. The queries of decision blocks **422** and **424** are included in the alert dialog box **600**. The alert dialog box **600** is displayed when the user desires to attach a web page having links to resource files, but where the automatic packing registry key has been set to “off.” In such a case, the display of the alert dialog box **600** notifies the user that the web page’s resource files will not be sent, unless the user authorizes the email client to do otherwise.

If the user selects the “Yes” button **602**, then the resource files will be packed with the web page into a single Web Archive file. If the user selects the “No” button **604**, then the resource files will not be packed with the web page into a single Web Archive file and the web page’s main HTML source file will be sent as a stand-alone attachment. If the user selects the “Cancel” button **606**, then the attachment operation is cancelled.

If the user checks the “Do not show me this dialog again” checkbox **608**, then the registry can be modified to reflect the user’s choice. If the user selects the “Yes” button **602** and checks checkbox **608**, then the automatic packing registry key will be set to “on” and the web page packing registry key will be set to “on.” Subsequently, the alert dialog box **600** will not be displayed in response to an attachment event and web pages will be automatically packed with accompanying resource files for transmission. If the user selects the “No” button **602** and checks checkbox **608**, then the automatic packing registry key will be set

to “off” and the web page packing registry key will be set to “off.” Subsequently, the dialog box will not be displayed in response to an attachment event and web pages will not be packed with accompanying resource files. Of course, the user can reset both
5 registry keys by invoking the email options dialog box **500** of the “Preferences” menu in the user’s email client, as discussed above in connection with Fig. 5.

The present invention has been described in relation to particular embodiments which are intended in all respects to be
10 illustrative rather than restrictive. Alternative embodiments will become apparent to those skilled in the art to which the present invention pertains without departing from its spirit and scope. Accordingly, the scope of the present invention is defined by the appended claims rather than the foregoing description.

[illegible]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

- [illegible]

comprises determining that a user has copied the selected file into the email note.

14. The method of Claim 10, wherein the step of
5 determining that the selected file is a web page comprises determining whether the selected file has an “.htm” extension.

15. The method of Claim 10, wherein the step of
10 determining that the selected file is a web page comprises determining whether the selected file has an “.html” extension.

16. The method of Claim 10, wherein the step of
determining that the selected file includes at least one link to at
least one resource file comprises determining whether the selected
15 file includes a tag including the string: <link rel=FileList href=>.

17. The method of Claim 10, wherein the step of
determining that the selected file includes at least one link to at
least one resource file comprises determining whether the selected
20 file includes a link tag selected from the group of:

;
;

<body background=>;
25 <script src=>;
<bgsound src=>;
<embed src=>; and
<link rel=”stylesheet”>.

18. The method of Claim 10, wherein the step of
30 determining whether automatic attachment of the at least one

resource file has been authorized comprises determining the status of at least one registry key.

5 19. The method of Claim 18, wherein the step of determining the status of at least one registry key comprises determining the status of a web page packing registry key.

10 20. The method of Claim 19, wherein the step of determining the status of at least one registry key comprises determining the status of an automatic packing registry key.

15 21. The method of Claim 10, wherein the step of packing the selected file and the at least one resource file into a single attachment file comprises converting the selected file and the at least one resource file into an MHTML file.

5

resource file;

a web page packing object operative to pack the web page and at least one resource file into a single web archive file;

15

20

```
<img src=>;  
<img lowsrc=>;  
<img dynsrc=>  
<body background=>;  
<script src=>;  
<bgsound src=>;  
<embed src=>; and  
<link rel="stylesheet">.
```

25

25. The system of 22, wherein the single web
30 archive file comprises an MHTML file.

SYSTEM AND METHOD FOR SENDING A WEB PAGE VIA ELECTRONIC MAIL

5 ABSTRACT OF THE DISCLOSURE

10 An email client is configured to watch for attachment events and to automatically package a web page as a single-file attachment to an email note. When an attachment event is recognized by the email client, a determination is made as to whether the attached file is an HTML document. If the attached document is an HTML document, then a determination is made as to whether the HTML document has supporting resource files. If the HTML file has supporting resource files, then the registry is checked to see if the user has specified to include all supporting resource files with any HTML attachment. If not, then the user is prompted by a dialog box to select whether the supporting resource files should be attached. If the user expresses a desire to have the supporting resource files attached then the web page and all supporting resource files are packaged into a single file in Web Archive (e.g., MHTML) format. This single file is attached to the email note and transmitted with the email note to the recipient. The recipient will be able to unpack the attachment so that the web page can be displayed in its original form.

25

Attorney Docket No.: 13237-2615

30 Microsoft Docket No.: 149405.1

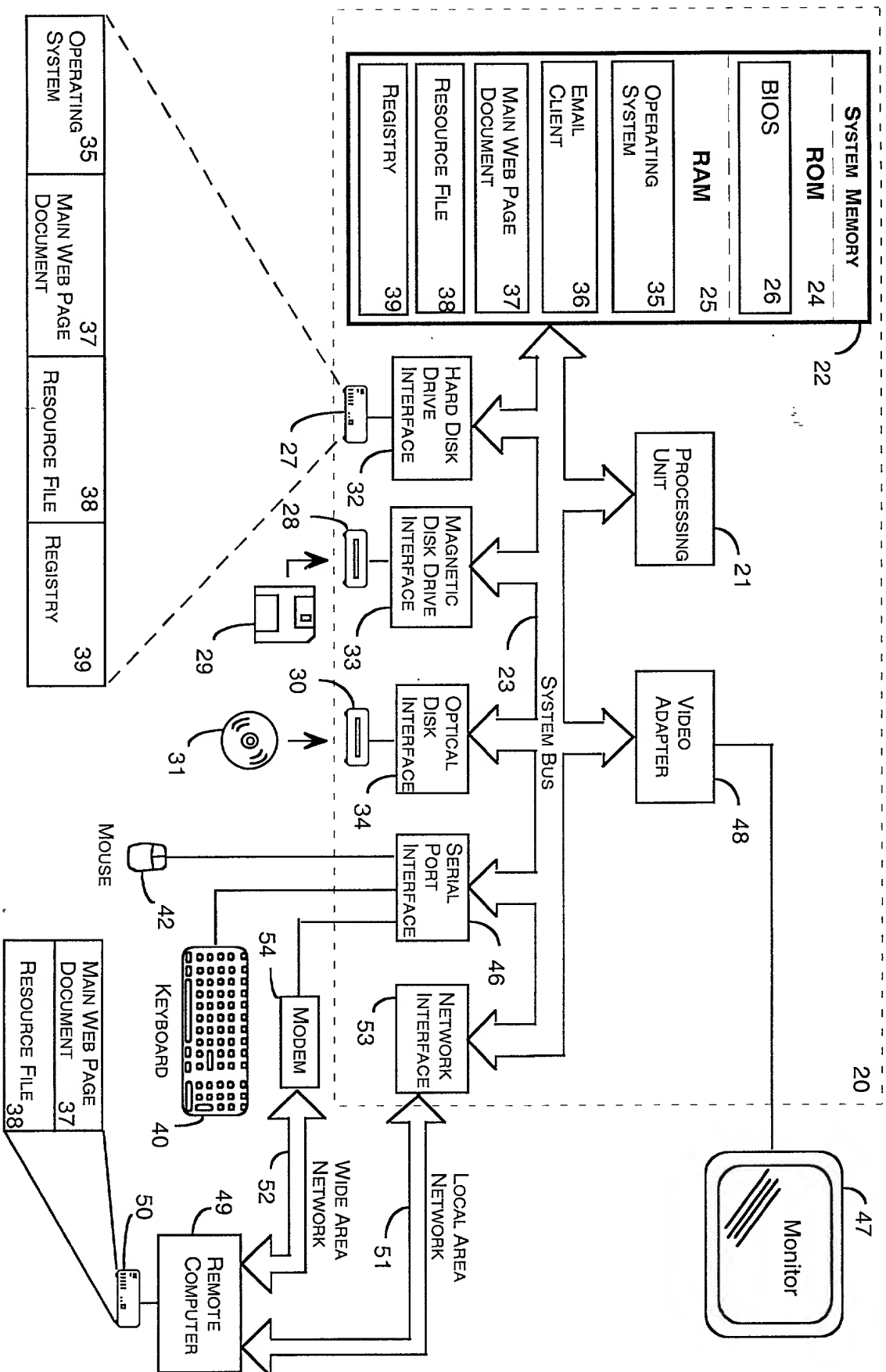


FIG. 1

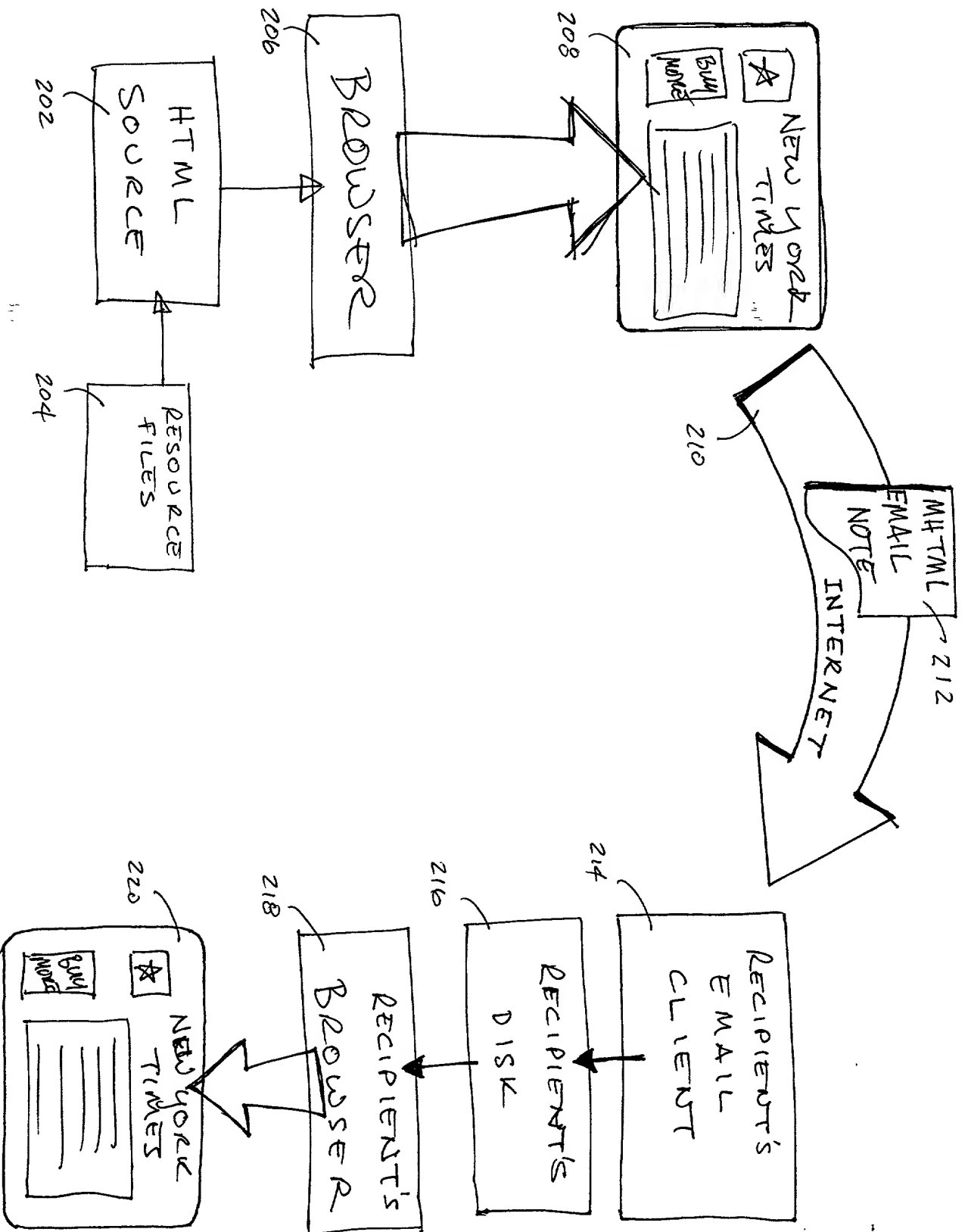


FIG. 2

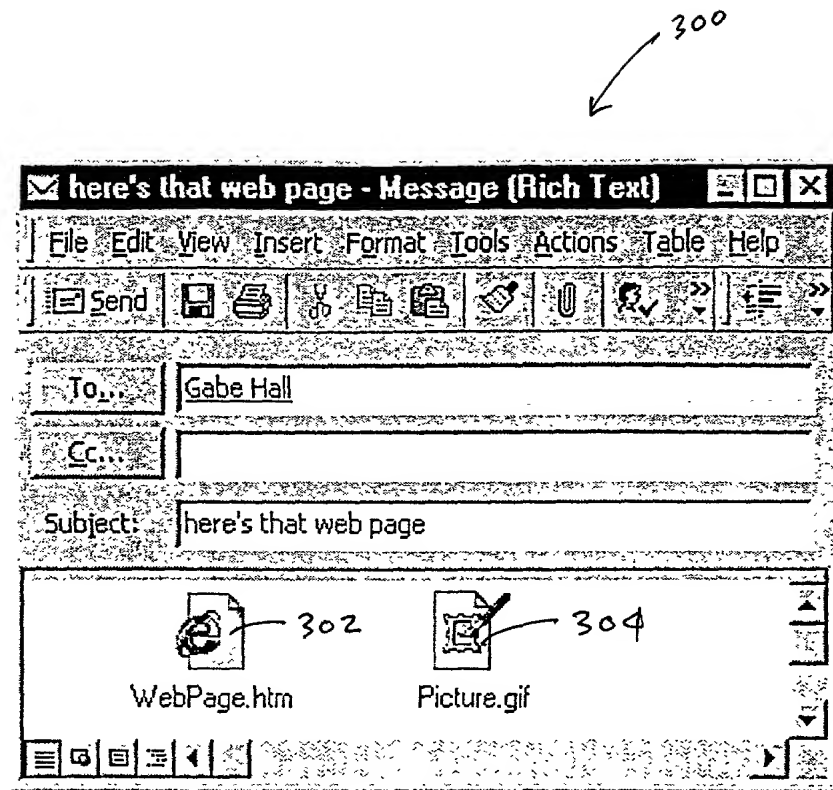


FIG. 3a

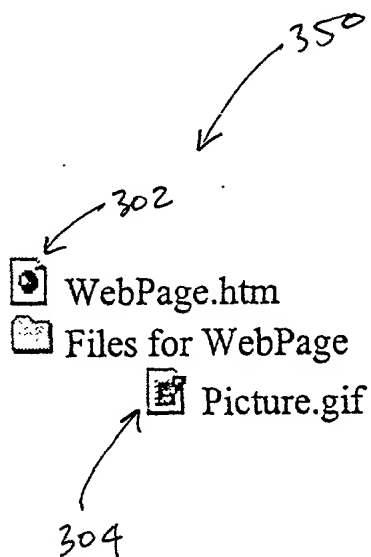


FIG. 3b

004290 0062500

500

Advanced E-mail Options ? X

Save messages

Save unsent items in: Drafts

☒ AutoSave unsent every: 3 minutes

☐ In folders other than the Inbox, save replies with original message

☒ Save forwarded messages

When new items arrive

☒ Play a sound

☒ Briefly change the mouse cursor

When sending a message

Set importance: Normal

Set sensitivity: Normal

☐ Allow comma as address separator

☒ Automatic name checking

☒ Delete meeting request from Inbox when responding

When attaching Web pages to a message:

Choose between Web pages and Web archives

OK Cancel

502

504

FIG. 5

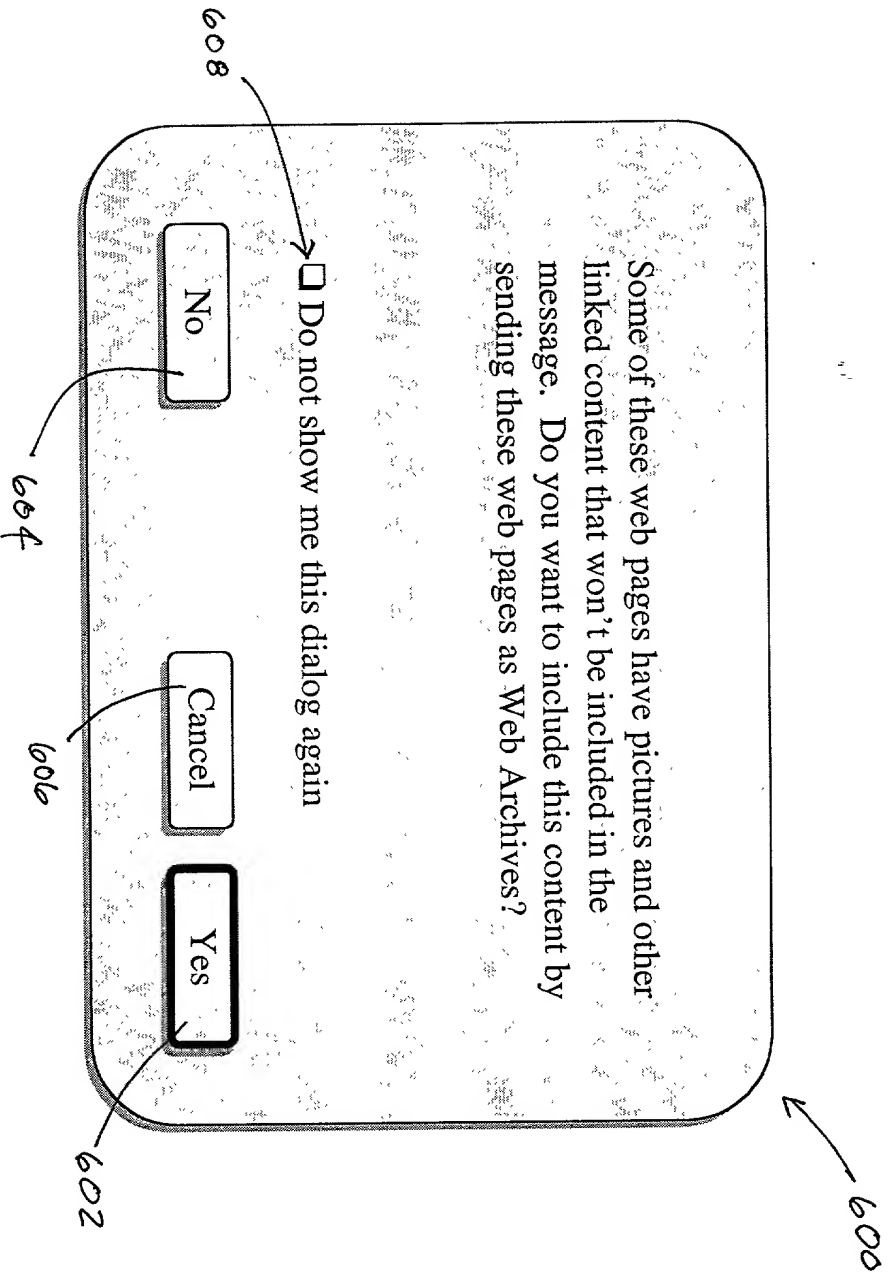


Fig. 6

DECLARATION AND POWER OF ATTORNEY

Attorney's Docket No. 13237-2615/MS#149405.1

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name. I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SYSTEM AND METHOD FOR SENDING A WEB PAGE VIA ELECTRONIC MAIL**, the specification of which:

☒ is attached hereto.

☐ was filed on _____ (if applicable) and was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used by others in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to the date of this application. I further state that the invention was not in public use or on sale in the United States of America more than one year prior to the date of this application. *I understand that I have a duty of candor and good faith toward the Patent and Trademark Office*, and I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(d) of the foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application for patent or inventor's certificate disclosing subject matter in common with the above-identified specification and having a filing date before that of the application on which priority is claimed:

<u>Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Priority Claimed Under 35 USC §119</u>
			Yes _____ No _____

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

<u>(Application No.)</u>	<u>(Filing Date)</u>	<u>(Application No.)</u>	<u>(Filing Date)</u>
--------------------------	----------------------	--------------------------	----------------------

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter disclosed and claimed in the present application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status: patented, pending, abandoned</u>
-------------------------------	--------------------	---


I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statement were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

POWER OF ATTORNEY: The following attorneys are hereby appointed to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Anthony B. Askew - 24,154; Roger T. Frost - 22,176; Jeffrey E. Young - 28,490; Robert E. Richards - 29,105; John R. Harris - 30,388; Stephen M. Schaetzel - 31,418; Larry A. Roberts - 31,871; Gregory T. Gronholm - 32,415; Dale Lischer - 28,438; Peter G. Pappas - 33,205; James Dean Johnson - 31,771; Daniel J. Warren - 34,272; Leona G. Young - 37,266; Jamie L. Greene-32,467; Holmes J. Hawkins III - 38,913; Mary Anthony Merchant - 39,771; William L. Warren - 36,714; Brenda Ozaki Holmes - 40,339; James D. Withers - 40,376; Kimberly J. Prior - 41,483; Theodore M. Green - 41,801; Christopher J. Leonard - 41,940; Christos S. Kyriakou - 42,776; John K. McDonald - 42,860; Michael S. Pavento - 42,985; Suzanne Seavello Shope - 37,933; Sima Singadia Kulkarni - 43,732; A. Shane Nichols - 43,836; Christopher J. Chan - 44,070; John M. Briski - 44,562; Lisa C. Elsevier - 44,669; S. Craig Hemenway - 44,759; Paul E. Knowlton - 44,842; Charles E. Peeler - 45,004; Cheryl L. Huseman - 45,392; Adam Avrunin - P45,457; Shelby B. Grier - P45,785; Vaibhav P. Kadaba - P45,865; M. Todd Mitchem - 40,731; Scott E. Brient - 44,561; Katie E. Sako-32,628; Daniel D. Crouse-32,022.

Send correspondence to: **JONES & ASKEW, LLP**
2400 Monarch Tower, 3424 Peachtree Road, N.E.
Atlanta, GA 30326

Direct telephone calls at (404) 949-2400

A. Shane Nichols, Esq.

Full name of joint inventor: Gabriel J. Hall	Citizenship: USA
Inventor's signature 	Date: May 19, 2000
Residence and Post Office Address: 17135 131st Ave NE #N306, Woodinville, WA 98072	

☒ Additional inventors are being named on separately numbered sheets attached hereto.

DECLARATION AND POWER OF ATTORNEYAttorney's Docket No. **13237-2615/MS#149405.1**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name. I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SYSTEM AND METHOD FOR SENDING A WEB PAGE VIA ELECTRONIC MAIL**, the specification of which:

☒ is attached hereto.☐ was filed on _____ (if applicable) and was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used by others in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to the date of this application. I further state that the invention was not in public use or on sale in the United States of America more than one year prior to the date of this application. *I understand that I have a duty of candor and good faith toward the Patent and Trademark Office*, and I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(d) of the foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application for patent or inventor's certificate disclosing subject matter in common with the above-identified specification and having a filing date before that of the application on which priority is claimed:

<u>Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Priority Claimed Under 35 USC §119</u>
------------------------	----------------	--------------------	---

Yes _____	No _____
-----------	----------

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

<u>(Application No.)</u>	<u>(Filing Date)</u>	<u>(Application No.)</u>	<u>(Filing Date)</u>
--------------------------	----------------------	--------------------------	----------------------

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter disclosed and claimed in the present application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status: patented, pending, abandoned</u>
-------------------------------	--------------------	---

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statement were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

POWER OF ATTORNEY: The following attorneys are hereby appointed to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Anthony B. Askew - 24,154; Roger T. Frost - 22,176; Jeffrey E. Young - 28,490; Robert E. Richards - 29,105; John R. Harris - 30,388; Stephen M. Schaezel - 31,418; Larry A. Roberts - 31,871; Gregory T. Gronholm - 32,415; Dale Lischer - 28,438; Peter G. Pappas - 33,205; James Dean Johnson - 31,771; Daniel J. Warren - 34,272; Leona G. Young - 37,266; Jamie L. Greene - 32,467; Holmes J. Hawkins III - 38,913; Mary Anthony Merchant - 39,771; William L. Warren - 36,714; Brenda Ozaki Holmes - 40,339; James D. Withers - 40,376; Kimberly J. Prior - 41,483; Theodore M. Green - 41,801; Christopher J. Leonard - 41,940; Christos S. Kyriakou - 42,776; John K. McDonald - 42,860; Michael S. Pavento - 42,985; Suzanne Seavello Shope - 37,933; Sima Singadia Kulkarni - 43,732; A. Shane Nichols - 43,836; Christopher J. Chan - 44,070; John M. Briski - 44,562; Lisa C. Elsevier - 44,669; S. Craig Hemenway - 44,759; Paul E. Knowlton - 44,842; Charles E. Peeler - 45,004; Cheryl L. Huseman - 45,392; Adam Avrunin - P45,457; Shelby B. Grier - P45,785; Vaibhav P. Kadaba - P45,865; M. Todd Mitchem - 40,731; Scott E. Brient - 44,561; Katie E. Sako - 32,628; Daniel D. Crouse - 32,022.

Send correspondence to: **JONES & ASKEW, LLP**
2400 Monarch Tower, 3424 Peachtree Road, N.E.
Atlanta, GA 30326

Direct telephone calls at **(404) 949-2400**

A. Shane Nichols, Esq.

Full name of joint inventor: <u>Alan Ramaley</u>	Citizenship: <u>USA</u>
Inventor's signature: <u>[Signature]</u>	Date: <u>May 19th, 2000</u>
Residence and Post Office Address: <u>704 E. Thomas Street, Apt. 201, Seattle, WA 98102</u>	

☐ Additional inventors are being named on separately numbered sheets attached hereto